

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Sherwin-Williams Plant Fire Response - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VI

**Subject:** POLREP #3  
Progress  
Sherwin-Williams Plant Fire Response  
A6WT  
Garland, TX  
Latitude: 32.9080210 Longitude: -96.6667990

**To:** Craig Carroll, Region 6  
Brendan Roache, OEM  
Anthony Buck, TCEQ

**From:** Eric Delgado, FOSC  
**Date:** 8/9/2023  
**Reporting Period:** 8/9/2023

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A6WT	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	8/7/2023	<b>Start Date:</b>	8/7/2023
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	TXN000622299	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

CERCLA emergency response with potentially responsible party (PRP) oversight at a paint manufacturing facility.

#### 1.1.2 Site Description

##### 1.1.2.1 Location

The incident occurred at an active paint manufacturing facility in Garland, Texas. The facility is located within a primarily commercial/industrial area at 701 South Shiloh Road, Garland, Dallas County, Texas 75042 (Site). A large residential neighborhood is located approximately 0.25 miles southeast of the Site. Two bodies of water, Stream 2C4 and Duck Creek, flow through the residential neighborhood.

##### 1.1.2.2 Description of Threat

The following table provides chemicals that were potentially released from the facility :

Hydrogen Cyanide	Ammonia	Ethylene glycol	n-Butyl acrylate
PFAS	Ammonium hydroxide	Ethylene glycol monohexyl ether	Nonylphenoxypoly(ethoxy)ethanol
1,2,4-Trimethylbenzene	Ammonium persulfate	Ethylene glycol monoprophyl ether	o-Xylene
1,4-Dioxane	Benzene	Ethylene oxide	Pentadecaflourooctanoic acid (PFAO)
1-Butanol	Bisphenol A	Formaldehyde	Propylene oxide
2-Butoxyethanol	Cumene	Formic acid	Sodium nitrate
2-Pentanone, 4-methyl-	Cyclohexane	Hexachlorobenzene	Styrene
2-Phenoxyethanol	Dibenzoyl peroxide	Hexamethylene diisocyanate	Tert-Butyl alcohol
4,4-Methylenediphenyl diisocyanate	Diethanolmine	Hydroquinone	Toluene
4-Nonylphenol, branched and linear, ethoxylated	Diethylene glycol monobutyl ether	Isocyanic acid, polymethylenopolyphenylene ester	Triethylamine
Acetaldehyde	Diethylene glycol monoethyl ether	Methyl alcohol	Xylenes
Acrolein	Epichlorohydrin	Methyl methacrylate	Zinc pyrithione
Acrylamide	Ethyl acrylate	Naphthalene	
Acrylic Acid	Ethylbenzene	Naphthenic acids, zinc salts	

The facility was unable to shutoff the fire suppression system during the incident which resulted in the release of an unknown amount of aqueous fire-fighting foam (AFFF) and firewater into storm drains that discharged into Stream 2C4. Stream C24 flows into Duck Creek which ultimately flows into the East Fork of the Trinity River. Several odor complaints were reported by members of the community to EPA and TCEQ.

### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

On 8/7/23, at approximately 1:20 am, the Garland Police (GPD) and Fire Department (GFD) Dispatch received notification of an incident involving an explosion and fire at the Sherwin Williams Plant Facility, located at 701 South Shiloh Road, Garland, Dallas County, Texas 75042. Garland Police Department, Garland Fire Department, and Richardson HazMat were the first to respond to the incident. Follow up explosions were reported throughout the night. It was reported that the initial fire at the facility was extinguished at approximately 5 p.m. The Garland Fire Department and Sherwin Williams continued to monitor the site for additional flareups.

#### 2.1.2 Response Actions to Date

Upon confirmation that the fire was extinguished, Sherwin Williams discovered that two acrylic acid polymer tanks' cooling systems were impaired and unable to maintain temperatures to avoid rapid polymerization. Sherwin Williams began running a temporary cooling process to stabilize tank temperatures and is actively measuring and recording the tanks temperatures and reporting their findings to responding agencies. The EPA OSC and state OSC have advised Sherwin Williams to remove the remaining materials from the acrylic acid polymer tanks and dispose of the materials off-site.

EPA Federal On-Scene Coordinator (FOSC) Eric Delgado arrived on-site at approximately 1p.m. and EPA START contractors arrived on-site at approximately 1:30p.m. EPA conducted community air monitoring using a MultiRAE Pro equipped with a hydrogen cyanide sensor, a Draeger XPID 9500 to analyze for acrylates, benzene, toluene, ethylene, xylene, and styrene, and a personalDataRam pDR-1500 to monitor for PM 2.5. TCEQ conducted airmonitoring with its DUVAS vehicle. The detection limits and community action levels for the incident's chemicals of concern (CoCs) are listed below:

CoCs	Instrument	Instrument Detection Limit Range	Community Action Level
Methyl Methylacrylate	XPID9500	2.5 - 275 ppm	17 ppm
Styrene	XPID9500	1.0 - 300 ppm	15.6 ppm
Hydrogen Cyanide	MultiRAE Pro	0.5 - 50 ppm	1 ppm
Benzene	XPID9500	0.02 - 25 ppm	0.54 ppm
Toluene	XPID9500	0.33 - 100 ppm	12 ppm
Xylene	XPID9500	1.0 - 300 ppm	5.1 ppm
Ethyl Acrylate	XPID9500	1.0 - 200 ppm*	8.3 ppm
Butyl Acrylate	XPID9500	*	8.3 ppm
PM 2.5	pDR-1500	1 - 400,000 micrograms/m <sup>3</sup>	250 micrograms/m <sup>3</sup>

\*Results are qualified, but not quantified as the concentration calculation is based on simplified assumptions with modest demands of accuracy.

EPA conducted community air monitoring for methyl methylacrylate, styrene, hydrogen cyanide, benzene, toluene, xylene, ethyl acrylate, butyl acrylate, volatile organic compounds (VOCs), particulate matter less than 2.5 micrometers in diameter (PM 2.5). VOCs, including benzene, and PM 2.5 were detected during air monitoring activities; however, the readings were below the site-specific community action levels. Further information regarding air monitoring activities can be found in *Section 2.1.2 Response Actions to Date*. EPA observed that approximately 7.4 miles of surface water consisting of Stream 2C4 and Duck Creek were impacted by AFFF and firewater. Sherwin Williams began containment and recovery efforts along Stream 2C4 and Duck Creek and have additional resources on the way to supplement surface water containment and recovery efforts.

EPA and TCEQ did not observe readings for any CoCs at or above site-specific community action levels while conducting community air monitoring. EPA observed readings above instrument detection limits for benzene, VOCs, and PM 2.5. The highest readings observed by EPA for benzene, VOCs, and PM 2.5 were 0.1 ppm, 0.4 ppm, 213 micrograms/m<sup>3</sup>, respectively. EPA did not observe readings above instrument detection limits for methyl methylacrylate, styrene, hydrogen cyanide, toluene, xylene, ethyl acrylate, or butyl acrylate. EPA also activated the ASPECT aircraft to obtain optical and thermal imagery of the Site.

EPA observed approximately 7.4 miles of surface waters consisting of Stream 2C4 and Duck Creek impacted by AFFF and firewater. The furthest extent of observed impact was at the Duck Creek Greenbelt Park (32.859857, -96.620867). Sherwin Williams deployed sorbent booms at the portion of Stream 2C4 near the intersection of Saturn Rd and Anita Dr (32.887246, -96.648271) and is building an earthen dam on the portion of Duck Creek located near Wynne Park (32.872322, -96.634193). Sherwin Williams is also recovering fluids from the portion of Stream 2C4 near the intersection of Saturn Rd and Anita Dr with a vacuum truck and storing fluids in a frac tank. EPA observed dead fish at several areas in Stream 2C4.

On 8/8/2023, at approximately 12am, EPA completed initial air monitoring activities after all 8/7/23 readings were below the site-specific action levels. At approximately 3am, TCEQ informed EPA that the dam installed at Wynne Park had failed. The City of Garland reportedly requested contractors to repair the failed dam; however, the dam was repaired in the afternoon. An additional dam was constructed near the failed dam location. A third dam was constructed near the Guthrie Bridge in the vicinity of I-30 and Broadway Blvd. EPA documented source, collection, and recovery locations at impacted areas ranging from the Site to the furthest downstream dam.

Unified Command has been set up at the Garland Police Department. Responding agencies are working to assess the impacts of the release. The RP is currently working to mitigate the impacts that the firewater and AFFF may have on Stream 2C4 and Duck Creek. The temperature of the polymer tanks continues to be measured by Sherwin Williams and are coordinating with the responding agencies. Sherwin Williams not yet removed the remaining acrylic acid polymers from the Site, stating issues with disposal and health and safety. Contingency plans have been set in place until Sherwin Williams can get their expert on site to assess the potential issues with off-loading the remaining acrylic acid polymers.

Based on existing observed readings of CoCs no major impacts to public health have been identified at this time. City of Garland is currently doing press releases and have advised the public to not fish or have contact with these creeks while contaminant testing and cleanup activities continue. The US Department of the Interior and the US Fish and Wildlife Service indicated that there is a possibility that Duck Creek may contain sensitive wildlife which includes proposed threatened species of Alligator Snapping Turtles and Texas Fawnsfoot clams which is not confirmed.

EPA served Sherwin Williams with a CWA Section 311 Administrative Order (311c), Declaration in Support of the Administrative Order, and the SOW (Statement of Work).

On 8/9/2023, the EPA mobilized ERRS HAZMAT specialists to review Sherwin William's workplan outlining the above ground storage tanks (AST) transfer operations into tanker trucks staged to be offloaded offsite. EPA provided comments to Sherwin Williams based on comments provided by ERRS HAZMAT specialists. Sherwin Williams addressed EPA's comments and a final workplan was approved by EPA.

In the event of a worst case scenario involving the tanks, EPA requested that Sherwin Williams provide a contingency plan. Sherwin Williams provided EPA with the requested contingency plan. EPA reviewed and provided comments on Sherwin Williams workplan outlining the procedures for the transfer of acrylic acid and methacrylic acid from RT-9 and RT-10 Aboveground Storage Tanks (ASTs) into tanks trucks which will transport the materials offsite to their respective final destinations. Air monitoring operations will be conducted by CTEH during the transfer operations as outlined in the Air Sampling and Analysis Plan.

EPA activated the Poison Control Center to respond to health related questions from the public and provide situation reports summarizing the nature of calls from the public as needed.

EPA continued documentation of the recovery/containment operations, sampling operations, and wildlife impacts. Air monitoring is being conducted by Sherwin Williams. EPA observed and documented that impacted runoff from the Site had entered the Trinity River.

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potentially Responsible Party (PRP) is Sherwin Williams.

#### 2.1.4 Progress Metrics

As of morning August 10, 2023

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
AFFF/Firefighting water	Water/Product Mixture	~580,000	Various	N/A	

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

#### 2.2.1.1 Planned Response Activities

The transfer of acrylic acid and methacrylic acid from two above ground storage tanks (AST) into tanker trucks which will be offloaded and transported off-site which is scheduled to begin on the morning of 8/10/2023. The EPA ERSS contractor will provide oversight of transfer operations that will be executed by Sherwin Williams personnel. Sherwin Williams will be bringing in 4 tankers to carry the remaining acrylic acid polymers from the Site. Two tankers will be used to collect the remaining material from Tank RT-9, and two tankers will collect the remaining material from tank RT-10. The tanker carrying the methacrylic acid from RT-9 will transport the material to a facility in Rochester, NY to an approved disposal facility. The tanker carrying the acrylic acid from RT-10 will be transporting the material to an unknown purchaser that will use the raw material.

Sherwin Williams will continue recovery efforts with vacuum trucks and frac tanks to recover AFFF fluids and firewater from Stream 2C4 and Duck Creek. Installation and maintenance of the containment structures (dams, berms, etc.) will also be monitored by Sherwin Williams. Sherwin Williams will begin community outreach efforts in an effort to obtain right of entries to access portions of Stream 2C4 and Duck creek which run through several residential properties.

EPA will continue to provide oversight and documentation Sherwin Williams' containment, recovery, and sampling operations. An EPA toxicologist will arrive on-site 8/10/23 to assist with the review of analytical data from Sherwin Williams' sampling efforts. EPA will also continue to monitor impacted waterways for visible contamination and wildlife impacts. EPA's surface water reconnaissance efforts on 8/10/23 will focus on delineating the furthest extent of visible impact. Soil and water sampling is scheduled to begin on 8/10/23.

### 2.2.2 Issues

There is chance of potential thunderstorms forecasted in the area during the night of 8/9/2023. Rainfall may impact containment efforts in impacted waterways by increasing flow of stormwater entering the waterways.

## 2.3 Logistics Section

No information to report.

## 2.4 Finance Section

### 2.4.1 Narrative

No information to report at this time.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

No information to report.

### 2.5.2 Liaison Officer

No information to report.

### 2.5.3 Information Officer

No information to report.

## 3. Participating Entities

### 3.1 Unified Command

EPA, TCEQ, City of Garland, and Sherwin Williams continue to operate in Unified Command.

### 3.2 Cooperating Agencies

EPA is working closely with the following federal, state and local agencies during this response: US Department of the Interior, US Fish and Wildlife Service, Texas Parks and Wildlife Department, TDEM, TCEQ, City of Garland Fire Department, City of Garland Police Department, City of Garland Emergency Management, North Texas Municipal Water District.

## 4. Personnel On Site

- EPA FOSCs
- EPA PIO
- EPA ERSS
- EPA START
- TCEQ
- TDEM
- City of Garland Fire Department
- City of Garland Police Department
- City of Garland Emergency Management
- North Texas Municipal Water District
- Sherwin Williams
  - Miller Environmental
  - Center for Toxicology and Environmental Health (CTEH)
  - TAS Environmental
  - Cactus Environmental

## 5. Definition of Terms

above ground storage tank (AST)

aqueous fire-fighting foam (AFFF)

Airborne Spectral Photometric Environmental Collection Technology (ASPECT)

Center for Toxicology and Environmental Health (CTEH)

chemicals of concern (CoCs)

EPA Federal On-Scene Coordinator (FOSC)

Garland Fire Department (GFD)

Garland Police Department (GPD)

meter (m)

particulate matter less than 2.5 micrometers in diameter (PM 2.5)

parts per million (ppm)

Potentially Responsible Party (PRP)

Superfund Technical Assessment and Response Team (START)

Texas Commission of Environmental Quality (TCEQ)

volatile organic compounds (VOCs)

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

Additional information may be obtained at [response.epa.gov/SherwinWilliamsPlantFireResponse](http://response.epa.gov/SherwinWilliamsPlantFireResponse).

### **6.2 Reporting Schedule**

A progress POLREP will be submitted as determined appropriate by the EPA OSC and a final POLREP will be submitted upon completion of the response.

## **7. Situational Reference Materials**

No information available at this time.